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TABLE III.—*Effect of mesh size on the rate of reduction.*

Rate of flow of Hydrogen = 1,000 c.c. per minute.

Temperature of reduction = 900°C.

Total time of reduction = 70 minutes.

	Mesh size.	Per cent reduction.
1 Lump ore	.. .. .. .. ..	53.08
2—10 mesh	.. .. .. .. ..	62.0
3—32 + 72	.. .. .. .. ..	77.6
4—100	.. .. .. .. ..	55.1

It is observed that the reducibility has a maximum value for 32 + 72 mesh sample and that—100 mesh sample has poor reducibility. Table IV indicates the effect of temperature on the reducibility of—32 + 72 mesh samples.

TABLE IV.—*Effect of temperature on the rate of reduction.*

Mesh size—32 + 72, rate of flow of hydrogen 1,000 c.c. per minute.

Total time of reduction 70 minutes.

	Temperature° C.	Per cent reduction.
1 600	.. .. .. .. ..	48.5
2 800	.. .. .. .. ..	59.8
3 900	.. .. .. .. ..	77.6
4 1000	.. .. .. .. ..	69.5

It is observed that a maximum reduction 77.6 per cent is obtained at 900°C. and the total reduction decreased at 1000°C.

It is clearly seen that the optimum mesh size, temperature and gas velocity and all of them have the effect of increasing the rate of reduction in the initial period of 20 minutes of reduction only and thereafter no appreciable difference is observed. This may be due to the high silica content of the ore which might combine with iron to form fayalite and making the further reduction a very slow process. Further experiments are being carried out to confirm these findings.

With these preliminary data on unconcentrated samples, the test results at different stages of concentration will be compared and the improvement in the reducibility of this ore will be observed.

A preliminary experiment conducted at 800°C. and 1,000 c.c. per minute hydrogen gas velocity with the concentrated ore of—32 mesh size analysing 65 per cent Fe and 8.5 per cent SiO<sub>2</sub> showed a percentage reduction of 71.99 per cent for 70 minutes and 84.14 per cent after 120 minutes respectively.



# THE MADRAS LEGISLATIVE ASSEMBLY

Thursday, the 13th March 1958.

The House met in the Assembly Chamber, Fort St. George, at half past eight of the clock, Mr. Speaker (THE HON. DR. U. KRISHNA RAU) in the Chair.

## I.—QUESTIONS AND ANSWERS.

MR. SPEAKER : Question No. 303 . . . The hon Member who put the question is not present. The answer will be printed in the proceedings.

### *Community Block Development*

\* 303 Q.—SRI V. ARUNACHALA THEVAR : Will the Hon. the Chief Minister be pleased to state—

(a) whether Tirumayam and Kolathur taluks in Pudukkottai Division are proposed to be included in the Community Block Development area; and

(b) if so, when?

THE HON. SRI C. SUBRAMANIAM : (a) Yes, Sir.

(b) It cannot definitely be stated now as to when exactly these taluks will be taken up for development under the National Extension Service Programme; they will get their turn in due course.

### *Reforms in the System of Examination*

\* 304 Q.—SRI K. SATTANATHA KARAYALAR (on behalf of Sri M. P. Subramaniam) : Will the Hon. the Minister for Finance be pleased to state—

(a) whether there are any proposals to introduce any reforms in the present system of examination at all stages of education; and

(b) if so, the details thereof?

THE HON. SRI C. SUBRAMANIAM : (a) The Seminar organized under the auspices of the All-India Council for Secondary Education has made certain suggestions regarding the reorganization of examination and evaluation procedure in secondary schools. The suggestions are being considered by the Director of Public Instruction, but no definite proposals have yet been formulated.

(b) Does not arise.

SRI A. A. RASHEED : Sir, is there any proposal to have *viva voce* for all degree courses?

THE HON. SRI C. SUBRAMANIAM : I don't think, Sir, that *viva voce* will be a substitute for written examination. What is contemplated is to take into account the class records also.

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**SRI T. T. DANIEL :** May I know from the Hon. Minister whether the examination for the E.S.L.C. in Kanyakumari area is still conducted by the Kerala Government?

**MR. SPEAKER :** This looks like a separate question.

**THE HON. SRI C. SUBRAMANIAM :** The hon. Member may put a separate question.

### *Rural dispensaries*

\* 305 Q.—**SRI V. K. KOTHANDARAMAN :** Will the Hon. the Minister for Revenue be pleased to state—

(a) the number of rural dispensaries in the North Arcot district, talukwise together with their place of location;

(b) the number of dispensaries in which and the period for which there are no doctors; and

(c) the reasons therefor?

**THE HON. SRI M. A. MANICKAVELU :** (a) A statement<sup>a</sup> is placed on the Table of the House.

(b) (1) Rural dispensary, Kadaladi, from 25th September 1957.

(2) Rural dispensary, Ponnai, from 6th April 1957.

(3) Rural dispensary, Pattuthakku, from 1st June 1956.

(4) Rural dispensary, Thellar, from 7th October 1955.

(5) Rural dispensary, Vengalathur, from 5th January 1957.

(c) Medical practitioners are generally unwilling to accept appointment in rural dispensaries at the existing rates of subsidy paid to them.

**SRI A. A. RASHEED :** Sir, what are the steps taken to get doctors for these rural dispensaries?

**THE HON. SRI M. A. MANICKAVELU :** Whatever steps that may be taken would not be fruitful unless the scale of pay is increased.

**SRI V. K. KOTHANDARAMAN :** ரூரல் டிஸ்பென்சரி என்று சொன்னால், கிராமத்திலே இருக்கக்கூடிய ஆஸ்பத்திரிகள். கிராமத்திலுள்ள மக்கள் அதி காலையிலிருந்து பகல் நேரம் வரையில் விவசாய வேலையில் ஈடுபட்டிருப்பவர்கள். அம்மாதிரி நேரத்தில் மட்டும், அதாவது காலையில் 7 மணி முதல் 12 மணி வரையில் ஆஸ்பத்திரிகள் திறந்து வைக்கப்பட்டிருக்கின்றன. பிற்பகலில் ஆஸ்பத்திரிகள் கிடையாது. இந்த நிலைமையில் இருந்தால் எப்படி கிராமத்திலுள்ள மக்கள் சிகிச்சை பற்றுமதியும்?

**THE HON. SRI M. A. MANICKAVELU :** நோயாலே பீடிக்கப் பட்டவர்கள் வேலை செய்யமுடியாது. ஆகையால் காலை நேரத்தில் அவர்கள் ஆஸ்பத்திரிக்கு போகலாம்.